

State of California  
AIR RESOURCES BOARD

Component Executive Order C-U-06-033  
Arrow Hose & Tubing Inc. - Fuel Hose

WHEREAS, Pursuant to California Health and Safety Code, sections 39600, 39601 and 43013, the California Air Resources Board (ARB) has established a certification process for evaporative emission system components designed to control gasoline emissions from small off-road engines, as described in title 13 California Code of Regulations (13 CCR), section 2767.1;

WHEREAS, Pursuant to California Health and Safety Code, section 43013, ARB has established criteria and test procedures for determining the compliance of evaporative emission system components with the design requirements in 13 CCR, section 2754;

WHEREAS, Pursuant to 13 CCR, section 2767.1, ARB Executive Officer may issue an Executive Order if she determines that the small off-road engine evaporative emission system component conforms to the applicable performance requirements set forth in 13 CCR, section 2754; and

WHEREAS, Pursuant to Health and Safety Code, sections 39515 and 39516, ARB Executive Officer issued Executive Order G-05-008 delegating to the Chief of ARB Monitoring and Laboratory Division (MLD) the authority to certify small off-road engine evaporative system components.

NOW, THEREFORE, I, William V. Loscutoff, Chief of the Monitoring and Laboratory Division, find that Arrow Hose & Tubing Inc. 49 permea FT and 89 permea FH fuel hoses conforms with the performance requirements set forth in the 13 CCR, section 2754 when tested at a constant temperature of 40 °C, pursuant to SAE J1737 using an approved test fuel of Indolene.

IT IS ORDERED AND RESOLVED that the following small off-road engine fuel hoses manufactured by Arrow Hose & Tubing Inc. are certified for use in small off-road equipment.

Table 1  
Dimensions and Tolerances for Arrow Hose & Tubing Inc. 49 permea FT and 89 permea FH Fuel Hoses

Nominal Inside Diameter(s) (in)	Minimum Polyvinylidene fluoride (PVDF) Barrier Thickness (in)
0.187 ± 0.005 or greater	0.005 ± 0.001

IT IS FURTHER ORDERED that Arrow Hose & Tubing Inc. shall provide a warranty to equipment manufacturers purchasing the 49 permea FT and 89 permea FH fuel hoses. The warranty must conform to the requirements of 13 CCR, section 2760.

IT IS FURTHER ORDERED that the certified Arrow Hose & Tubing Inc. 49 permea FT and 89 permea FH fuel hoses shall be installed in accordance with the manufacturer's installation and use instructions for Arrow Hose & Tubing Inc. 49 permea FT and 89 permea FH fuel hoses. A copy of this Executive Order and fuel hose installation and use instructions shall be provided to manufacturers purchasing 49 permea FT and 89 permea FH fuel hoses for installation on small off-road engines and equipment introduced into commerce in California.

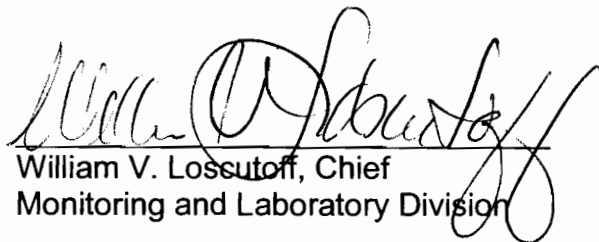
IT IS FURTHER ORDERED that fuel hoses listed in Table 1 shall be clearly identified by a permanent identification that allows the ARB to identify manufacturer's name, executive order number, and model number.

IT IS FURTHER ORDERED that any alteration to the fuel hose certified hereby is prohibited. Any alteration or modification of the design approved by this Executive Order will require the manufacturer to apply for a new Executive Order.

IT IS FURTHER ORDERED that Arrow Hose & Tubing Inc. 49 permea FT and 89 permea FH fuel hoses shall be compatible with fuels in common use in California at the time of certification and any modifications to comply with future California fuel requirements shall be approved in writing by the Executive Officer or Executive Officer's delegate.

IT IS FURTHER ORDERED that the component certification of Arrow Hose & Tubing Inc. 49 permea FT and 89 permea FH fuel hoses can be referenced in certification applications for small off-road engines and equipment that use small off-road engines unless the Executive Officer finds that Arrow Hose & Tubing Inc. 49 permea FT and 89 permea FH fuel hoses no longer meets the performance requirements set forth in 13 CCR, 2754 when tested pursuant to 13 CCR, 2765.

Executed at Sacramento, California, this 5<sup>th</sup> day of December, 2006.

  
William V. Loscutoff, Chief  
Monitoring and Laboratory Division